



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,802	04/13/2001	Lee A. Sweetapple	12492.0027	1943

7590 06/07/2004

Steptoe & Johnson LLP
Attn.: Stuart T.F. Huang
1330 Connecticut Avenue, NW
Washington, DC 20036

EXAMINER

CHIN, GARY

ART UNIT	PAPER NUMBER
----------	--------------

3661

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,802

Applicant(s)

SWEETAPPLE, LEE A.

Examiner

Gary Chin

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-6, 8, 11, 22 and 23 is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 9, 10, 12, 13, 17, 19 and 21 is/are rejected.
- 7) ☒ Claim(s) 14-16 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 3, 9-10, 13, 17 and 19-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 9 and 19, the preamble of these claims is directed to a system for detecting local interferences in GPS signals, however, there is no recitation in the body of these claims as to how the local interferences in GPS signals are being detected by the recited structural elements. Further, "GPS coordinates" (line 5) and "a range of error" (line 6) recited in these claims should be "said GPS coordinates" and "said user-defined range of error" respectively in order to avoid the antecedent basis problem.

As per claims 3 and 13, both on line 2, "GPS signals" should be "said GPS signals" in order to avoid the antecedent basis problem.

As per claim 17, the dependency recited therein should be "claim 12", otherwise, it would contain the same limitation as claim 7. (It appears that claim 18 should also be depended on claim 12.)

Claims 10, 20 and 21 are rejected for incorporating the above errors from their respective parent claims by dependency.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 3661

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 7, 12-13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huston et al (patent no. 5751244) in view of the PCT publication no. WO89/05460.

As per claims 1-3, 7, 13 and 17, the reason for the rejection based upon the combined teachings of Huston et al and the PCT publication as set forth in the last office action is maintained and incorporated herein by reference.

As per claim 12, the claimed limitations therein are identical to claim 1 with the exception of the added wherein clause which recites that the marker is in the same location for both the determining of the initial position of the marker and the calculating of the GPS coordinate position of the marker. However, the Huston et al reference in the abstract clearly implies that the determining of the initial position of the GPS receiver (or marker) and the subsequently calculated GPS position of the GPS receiver are not taken place in different locations, in other words, they are in the same location of the GPS receiver (or marker) as required.

4. Claims 1-3, 7, 12-13 and 17 are further rejected under 35 U.S.C. 103(a) as being unpatentable over the PCT publication no. WO89/05460.

As per claims 1-2 and 12, figure 2 and the abstract of the PCT publication clearly disclose the claimed method for detecting GPS errors including the steps of determining an initial position of a buoy (or marker) (item 24), receiving GPS signals at the marker (item 23), calculating the GPS coordinates position of the marker and comparing the initial marker position with the calculated GPS coordinate position of the marker (item 25) and issuing a warning if the compared result is more than a predetermined amount (item 28). It is noted that the initial

Art Unit: 3661

position of the buoy (or marker) is not specifically labeled as GPS position as claimed. However, it would have been readily apparent to one skilled in the art that such initial position has to be GPS position, otherwise, it can not been used to compare with the calculated GPS coordinate position of the buoy (or marker) to determine the error.

As per claims 3 and 13, it is noted that the initial position of the buoy or marker in the PCT publication is a known position and not a calculated initial position by using the sample GPS signals as claimed. However, it would have been obvious for one skilled in the art that in the event that the initial marker position is unknown, such initial position can be easily calculated in the same manner in which the present GPS marker position is being calculated by using the sampled GPS signals as taught in the PCT publication.

As per claims 7 and 17, it is a well-known practice in the art to issue a warning if there are insufficient GPS signals to perform the calculation in order to avoid any erroneous result.

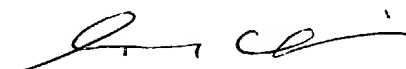
5. In the amendment, applicant essentially argued that since the Whyntie reference (PCT publication) issues a warning when a buoy drifts too far away from a monitoring station and has nothing to do with GPS error correction or calibration in Huston. Applicant's attack on the Whyntie reference is inappropriate. The Whyntie reference is merely cited to show the feature of issuing a warning when the different between the initial position and the subsequently calculated GPS position is more than a predetermined amount is well known in the art. It is the examiner's contention that it would have been obvious for a person having ordinary skill in the art to incorporate such well known "warning" as taught in Whynite into the Huston et al system so that a more informative system can be provided to the user in the event that any GPS error is outside the tolerant range.

Art Unit: 3661

6. Claims 4-6, 8, 11 and 22-23 are currently considered allowable over the art of record.
7. Claims 9-10 and 19-20 could be allowed if the aforementioned 112, second paragraph errors are overcome.
8. Claims 14-16 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. Claim 21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary Chin whose telephone number is (703) 305-9751. The examiner can normally be reached on Monday-Friday 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



GARY CHIN
PRIMARY EXAMINER